

1

Notice of Allowability	Application No.	Applicant(s)
	09/104,947	FORBORD, KENT J.
	Examiner William J. Klimowicz	Art Unit 2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to the RCE and Amendment filed October 20, 2004.
2. The allowed claim(s) is/are 52-71, renumbered as claims 1-20.
3. The drawings filed on 25 June 1998 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of
Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10-20-04
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 20, 2004 has been entered.

Claim Status

Claims 1-51 have been voluntarily cancelled by the Applicant.

New Claims 52-71 have been presented with the Amendment filed on October 20, 2004.

Reasons for Allowance

The following is an Examiner's statement of reasons for allowance:

The prior art of record fails to fairly, teach, show or suggest, by either anticipating or rendering obvious, the invention as set forth in the claims of the instant application.

Furthermore, an update of a search previously made does not detect the combined claimed elements as set forth in the pending claims. Additionally, the reasons for allowance of the claims over the prior art of record is believed to be clear from the prosecution history taken as a whole. More particularly, the instant invention (as set forth in independent claims 52, 58 and 63) and as set forth in broadest claim 63, provides for a data storage device including a housing comprising a base deck, a top cover and a gasket seal compressed between the base deck and top cover to form a sealed interior environment. A single spindle motor supported within the

environment configured to rotate at least one data storage disc at a nominal operational speed about a disc axis. The base deck is further characterized as comprising a base surface which supports the spindle motor. A disc shroud surface is provided which extends from the base surface substantially parallel with the disc axis *at a substantially constant radius* adjacent an outermost perimeter of the at least one data storage disc. A lip surface is provided which extends from the shroud surface to an outermost edge of the base deck, wherein the lip surface is configured to compressingly engage the gasket seal, and wherein the lip surface has a minimum extent of at least about 15% of a line extending from the disc axis to the outermost edge of the base deck in a direction perpendicular to the outermost edge.

As pointed out by the Applicant in the Response filed with the amendment on October 20, 2004, support for the limitation of “the lip surface has a minimum extent of at least about 15% of a line extending from the disc axis to the outermost edge of the base deck in a direction perpendicular to the outermost edge” can be found in the original disclosure at page 10, lines 9-22; page 10, lines 4-8 for the more generalized case of form factors other than 3 ½ inch form factor, such as the 2 ½ inch form factor and the 5 ¼ inch form factor. That is, one of ordinary skill in the art when viewing the teachings of the Applicant’s disclosure as a whole, would readily appreciate extending the specific teachings of the 3 ½ inch form factor to the form factors of 2 ½ inch and 5 ¼ inch as expressly suggested by the Applicant at page 10, lines 4-8.

The Applicant provides such a lip surface minimum extent for the express reasons as espoused at page 17, lines 9-13 of the original disclosure:

Lip 115 provides a minimum of 7.6 mm on which to seat gasket 184 to seal the disc drive with cover 182. The prior art drive provided a seat dimension of 2.5 mm at the minimum location, which when resulted in the gasket mis-

seating against the housing and cover so that the drive was not properly sealed and contaminants could enter the drive.

Moreover, as it pertains to dependent claim 69 (which depends from claim 63), the recitation of a 2.5 inch form factor housing having a length of “about 101.6 millimeters (mm)” and a width of “about 73 mm” is not construed as new matter. More concretely, the Applicant previously disclosed in the original disclosure other form factors that may be applicable to the instant invention, including a 2.5 inch form factor standard (e.g., see, *inter alia*, page 10, lines 4-8 of Applicant’s originally filed specification). The known form factor standard at the time of the Applicant’s invention for such a 2.5 inch standard form factor includes a length dimension of about 101.6 mm and a width dimension of about 73 mm. See, e.g., the prior art to Grochowski et al. Magnetic Hard Disk Drive Form Factor Evolution, enclosed herewith, and dated August 1993, pages 521-526; see in particular Figure 2 of page 522, which articulates the footprint for the standard 2.5 inch form factor as having a length of 101.6 mm and a width of 73 mm.

The closet prior art includes the Applicant’s admitted prior art (e.g., see page 5 through page 9, line 16 and FIGS. 1-2; in particular see page 5, lines 20-22 and page 10, lines 17-22), wherein the conventional disk drive form factor has a lip surface extent of about 2.5 mm, contrasted with 7.6 mm for the Applicant of the same 3 ½ form factor (or a lip surface minimum extent of about 5% of a line extending from the disc axis to the outermost edge of the base deck in a direction perpendicular to the outermost edge for a particular form factor, in the generalized case).

To arrive at such a larger minimum lip surface extent, the Applicant has reduced the size of the disk normally associated with the prescribed form factor, thus allowing for a larger minimum lip surface extent within the same overall footprint.

Additionally, although another prior art disclosure to Takatsuka et al (JP 4-205776) (cited by the Examiner in Paper No. 27, mailed November 27, 2002) teaches reducing the disk diameter within a conventional form factor, thus allowing for more peripheral space surrounding a disk within the same size overall footprint, Takatsuka et al (JP 4-205776) is completely silent with respect to the minimum lip surface extent which can compressingly engage a sealing disk drive perimeter gasket.

Thus, neither the Applicant's admitted prior art of record nor Takatsuka et al (JP 4-205776) disclose the relationship of the minimum lip surface extent of a particular form factor disk drive in the manner, function and relationship relative to other claimed structure as prescribed by the independent claims 52, 58 and broadest claim 63.

Additionally, neither the Applicant's admitted prior art of record nor Takatsuka et al (JP 4-205776) provide, alone or in combination with the art of record or general knowledge within the art, any suggestion or teaching for the invention as set forth in the independent claims.

Conclusion

Any and all previous restriction requirement(s) have now been expressly withdrawn, due in part to changes in claim scope and the generic nature of the allowed independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

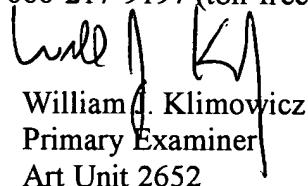
fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William J. Klimowicz
Primary Examiner
Art Unit 2652

WJK